AMENDMENTS TO THE CLAIMS

Please cancel claim 25 and amend claims 1, 3, 5, 6, 26, 27, 29-32 and 37 as follows:

1. (Currently Amended) A bridge for interconnecting together a plurality of buses each of which interconnects at least one node in a data network, comprising:

storage means for storing a number of receiving ~~node~~ nodes with respect to each of connections being established between nodes interconnected together on a same bus or each of connections being established between nodes interconnected together by means of different buses;

means for detecting occurrence of the bus reset on the specific bus; and

means for re-securing again resources that are previously secured before occurrence of the bus reset on the specific bus by a specific portal connected with the specific bus,

wherein a transmitting node and a receiving node remain connected with the data network regardless of occurrence of a bus reset on a specific bus constituting a part of a communication path that is established in advance for communication of stream packets.

2. (Original) A bridge according to claim 1 wherein the plurality of buses are made based on an IEEE 1394 standard, said bridge comprising a plurality of portals which are respectively connected with different buses, so that communication is performed between the different buses based on the IEEE 1394 standard.

3. (Currently amended) A device controller for controlling communication in a data network configured by a plurality of buses each of which interconnects at least one node, comprising:

storage means for storing a number of receiving nodes with respect to each of connections being established between nodes interconnected together on a same bus or each of connections being established between nodes interconnected together by means of different buses;

means for detecting occurrence of the bus reset on the specific bus; and

means for re-securing again resources that are previously secured before occurrence of the bus reset on the specific bus by a specific portal connected with the specific bus,

wherein a transmitting node and a receiving node remain connected with the data network regardless of occurrence of a bus reset on a specific bus constituting a part of a communication path that is established in advance for communication of stream packets.

4. (Original) A device controller according to claim 3 wherein the plurality of buses are made based on an IEEE 1394 standard.

5. (Currently amended) A communication path control method for controlling communication paths established in a data network that is configured by a plurality of buses each of which interconnects at least one node and which are connected together by means of at least one bridge installing a storage means, said communication path management method comprising the steps of:

storing to the storage means of the bridge a number of receiving nodes with respect to each of connections being established between nodes interconnected together on a same bus or each of connections being established between nodes interconnected together by means of different buses; [[and]]

controlling each of the communication paths to be established or disconnected by increasing or decreasing the number of receiving nodes in the storage means;

detecting occurrence of the bus reset on the specific bus; and

re-securing again resources that are previously secured before occurrence of the bus reset on the specific bus by a specific portal connected with the specific bus,

wherein a transmitting node and a receiving node remain connected with the data network regardless of occurrence of a bus reset on a specific bus constituting a part of a communication path that is established in advance for communication of stream packets.

6. (Currently amended) A communication path control method for controlling communication paths established in a data network that is configured by a plurality of buses each of which interconnects at least one node and which are connected together by means of at least one bridge under control of at least one device controller installing a storage means, said communication path management method comprising the steps of:

storing to the storage means of the device controller a number of receiving nodes with respect to each of connections being established between nodes interconnected together on a same bus or each of connections being established between nodes interconnected together by means of different buses; [[and]]

controlling each of the communication paths to be established or disconnected by increasing or decreasing the number of receiving nodes in the storage means;

detecting occurrence of the bus reset on the specific bus; and

re-securing again resources that are previously secured before occurrence of the bus reset on the specific bus by a specific portal connected with the specific bus,

wherein a transmitting node and a receiving node remain connected with the data network regardless of occurrence of a bus reset on a specific bus constituting a part of a communication path that is established in advance for communication of stream packets.

7. (Original) A communication path control method according to claim 5 wherein the bridge installs a first portal for receiving stream packets from a first bus connected thereto

and a second portal for repeating the stream packets to be transmitted to a second bus connected thereto, the first and second portals respectively having counters for storing a number of receiving nodes with respect to each of connections being established between nodes on the first and second buses respectively, and wherein if both of the counters of the first and second portals are changed to a prescribed integral number which is not less than '1' with respect to same stream packets concerned with both of the first and second portals, the stream packets are received by the first portal and are then transmitted to the second bus by way of the second portal.

8. (Original) A communication path control method according to claim 6 wherein the bridge installs a first portal for receiving stream packets from a first bus connected thereto and a second portal for repeating the stream packets to be transmitted to a second bus connected thereto, the first and second portals respectively having counters for storing a number of receiving nodes with respect to each of connections being established between nodes on the first and second buses respectively, and wherein if both of the counters of the first and second portals are changed to a prescribed integral number which is not less than '1' with respect to same stream packets concerned with both of the first and second portals, the stream packets are received by the first portal and are then transmitted to the second bus by way of the second portal.

9. (Original) A communication path control method according to claim 7 further comprising the step of: releasing setting for transmission of the stream packets from the first portal to the second portal if at least one of the counters of the first and second portals is changed to '0' with respect to the same stream packets concerned with both of the first and second portals.

10. (Original) A communication path control method according to claim 8 further comprising the step of: releasing setting for transmission of the stream packets from the first portal to the second portal if at least one of the counters of the first and second portals is

changed to '0' with respect to the same stream packets concerned with both of the first and second portals.

11. (Previously Presented) A communication path control method according to claim 7 further comprising the steps of: searching the first and second portals of the bridge being respectively connected with the first and second buses that construct parts of a communication path to be established; and incrementing the counters of the first and second portals by '1' to establish the communication path using the first and second buses being interconnected together by means of the bridge.

12. (Previously Presented) A communication path control method according to claim 8 further comprising the steps of: searching the first and second portals of the bridge being respectively connected with the first and second buses that construct parts of a communication path to be established; and incrementing the counters of the first and second portals by '1' to establish the communication path using the first and second buses being interconnected together by means of the bridge.

13. (Previously Presented) A communication path control method according to claim 7 further comprising the step of: decrementing the counters of the first and second portals by '1' to release the communication path that is established in advance by using the first and second buses being interconnected together by means of the bridge.

14. (Previously Presented) A communication path control method according to claim 8 further comprising the step of: decrementing the counters of the first and second portals by '1' to release the communication path that is established in advance by using the first and second buses being interconnected together by means of the bridge.

15. (Previously Presented) A communication path control method according to claim 11 wherein the counters of the first and second portals are changed by '1' after

completion of a search of the first and second portals of the bridge that exists in the communication path being established between a transmitting node and a receiving node.

16. (Previously Presented) A communication path control method according to claim 12 wherein the counters of the first and second portals are changed by '1' after completion of a search of the first and second portals of the bridge that exists in the communication path being established between a transmitting node and a receiving node.

17. (Previously Presented) A communication path control method according to claim 11 wherein a process of changing the counters of the first and second portals by '1' is repeated from one end of the communication path to another end of the communication path.

18. (Previously Presented) A communication path control method according to claim 12 wherein a process of changing the counters of the first and second portals by '1' is repeated from one end of the communication path to another end of the communication path.

19. (Previously Presented) A communication path control method according to claim 11 wherein each of the first and second buses that construct parts of the communication path interconnects thereon at least one node which installs a control means for searching portals depending on the communication path and changing their counters in value under a request.

20. (Previously Presented) A communication path control method according to claim 12 wherein each of the first and second buses that construct parts of the communication path interconnects thereon at least one node which installs a control means for searching portals depending on the communication path and changing their counters in value under a request.

21. (Previously Presented) A communication path control method according to claim 11 wherein the data network interconnects therein at least one node for searching portals existing on the communication path and storing identifiers of the portals being searched, so that the communication path is to be established or released on the basis of the identifiers extracted from the node.

22. (Previously Presented) A communication path control method according to claim 12 wherein the data network interconnects therein at least one node for searching portals existing on the communication path and storing identifiers of the portals being searched, so that the communication path is to be established or released on the basis of the identifiers extracted from the node.

23. (Previously Presented) A communication path control method according to claim 11 wherein each portal provides transfer information for determination whether to transfer asynchronous packets based on an IEEE 1394 standard being received from its own bus connected thereto to another bus or not, said communication path control method further comprising the steps of:

extracting the transfer information from all portals connected with a transmitting bus on the communication path;

designating a portal providing transfer information representing transfer of the asynchronous packets to a receiving node of a receiving bus on the communication path; and

requesting an adjacent portal of the designated portal in a same bridge to search portals that exist on the communication path.

24. (Previously Presented) A communication path control method according to claim 12 wherein each portal provides transfer information for determination whether to transfer asynchronous packets based on an IEEE 1394 standard being received from its own

bus connected thereto to another bus or not, said communication path control method further comprising the steps of:

extracting the transfer information from all portals connected with a transmitting bus on the communication path;

designating a portal providing transfer information representing transfer of the asynchronous packets to a receiving node of a receiving bus on the communication path; and

requesting an adjacent portal of the designated portal in a same bridge to search portals that exist on the communication path.

25. (Cancelled)

26. (Currently Amended) A communication path control method according to claim 10 wherein a transmitting node and a receiving node remain being connected with the data network regardless of occurrence of bus reset on a specific bus constructing a part of a communication path that is established in advance for communication of stream packets, said communication path control method further comprising the steps of:

detecting occurrence of the bus reset on the specific bus; and

re-securing again resources that are previously secured before occurrence of the bus ~~rest~~ reset on the specific bus by a specific portal connected with the specific bus.

27. (Currently Amended) A communication path control method according to claim [[25]] 10 further comprising the steps of:

making detection as to whether re-securement of the resources fails; and

if the re-securement fails, disconnecting the communication path that performs communication using the stream packets by way of the specific portal.

28. (Original) A communication path control method according to claim 26 further comprising the steps of:

making detection as to whether re-securement of the resources fails; and

if the re-securement fails, disconnecting the communication path that performs communication using the stream packets by way of the specific portal.

29. (Currently Amended) A communication path control method according to claim [[25]] 10 wherein upon detection of the occurrence of the bus ~~rest~~ reset on the specific bus, the specific portal proceeds to re-securement of the resources or disconnection of the communication path after completion of initialization of the specific bus.

30. (Currently Amended) A communication path control method according to claim 26 wherein upon detection of the occurrence of the bus ~~rest~~ reset on the specific bus, the specific portal proceeds to re-securement of the resources or disconnection of the communication path after completion of initialization of the specific bus.

31. (Currently Amended) A communication path control method according to claim [[25]] 10 further comprising the steps of:

requesting at least one node connected on the specific bus to make a communication upon detection of the bus ~~rest~~ reset; and

upon receipt of the communication, proceeding to re-securement of the resources or disconnection of the communication path by the specific portal.

32. (Currently Amended) A communication path control method according to claim 26 further comprising the steps of:

requesting at least one node connected on the specific bus to make a communication upon detection of the bus ~~rest~~ reset; and

upon receipt of the communication, proceeding to re-securement of the resources or disconnection of the communication path by the specific portal.

33. (Original) A communication path control method according to claim 7 wherein bus reset occurs on a specific bus constructing a part of a communication path that is established in advance for communication of stream packets from a transmitting node to a receiving node, said communication path control method further comprising the steps of:

making detection that the transmitting node and the receiving node do not remain being connected in the data network after completion of initialization on the specific bus; and

disconnecting the communication path that performs communication using the stream packets before the initialization of the specific bus by a specific portal connected with the specific bus.

34. (Original) A communication path control method according to claim 8 wherein bus reset occurs on a specific bus constructing a part of a communication path that is established in advance for communication of stream packets from a transmitting node to a receiving node, said communication path control method further comprising the steps of:

making detection that the transmitting node and the receiving node do not remain being connected in the data network after completion of initialization on the specific bus; and

disconnecting the communication path that performs communication using the stream packets before the initialization of the specific bus by a specific portal connected with the specific bus.

35. (Original) A communication path control method according to claim 23 further comprising the steps of:

periodically transmitting to each of portals that construct parts of the communication path prescribed asynchronous packets;

making determination that a specific bus connected with a specific portal which do not respond to the prescribed asynchronous packets being periodically transmitted is disconnected from the data network; and

disconnecting the communication path using the specific portal connected with the specific bus.

36. (Original) A communication path control method according to claim 24 further comprising the steps of:

periodically transmitting to each of portals that construct parts of the communication path prescribed asynchronous packets;

making determination that a specific bus connected with a specific portal which do not respond to the prescribed asynchronous packets being periodically transmitted is disconnected from the data network; and

disconnecting the communication path using the specific portal connected with the specific bus.

37. (Currently Amended) A communication path control system for use in a data network comprising:

a plurality of buses each of which installs at least one node as an isochronous resource manager (IRM) based on an IEEE 1394 standard;

at least one ~~bride~~ bridge that consists of at least two portals for interconnecting together two buses which are placed adjacent to each other within the plurality of buses, wherein each portal has a connection counter for counting a number of receiving nodes each of which receives stream packets being transmitted thereto from a transmitting node by way of each portal by itself;

a device controller that is connected with one of the plurality of buses to specify all portals that lie in a communication path extending from the transmitting node to a prescribed receiving node, so that the device controller requests each of the specified portals to increment a value of the connection counter by '1' for establishment of the communication path or the device controller requests each of the specified portals to decrement a value of the connection counter by '1' for release of the communication path;

means for detecting occurrence of the bus reset on the specific bus; and

means for re-securing again resources that are previously secured before occurrence of the bus reset on the specific bus by a specific portal connected with the specific bus,

wherein a transmitting node and a receiving node remain connected with the data network regardless of occurrence of a bus reset on a specific bus constituting a part of a communication path that is established in advance for communication of stream packets.

38. (Original) A communication path control system according to claim 37 wherein each of the portals stores a communication path management table containing the connection counter whose value is incremented or decremented to establish or disconnect the communication path.

39. (Original) A communication path control system according to claim 37 wherein the device controller stores a communication path management table that describes resources in connection with a connection counter with respect to each of buses that construct parts of the communication path being established, so that the device controller proceeds to establishment of a new communication path by increasing the connection counter or the device controller proceeds to disconnection of the communication path by decreasing the connection counter.

40. (Original) A communication path control system according to claim 39 wherein the resources describe at least a bandwidth and a channel number being used for communication over the communication path.

41. (Original) A communication path control system according to claim 39 wherein at occurrence of bus reset on a specific bus within the buses corresponding to the communication path, a specific portal connected with the specific bus proceeds to initialization of the specific bus, then, the device controller proceeds to re-securement of the resources which are previously secured before occurrence of the bus reset if the transmitting node and the receiving node remain being connected in the data network after occurrence of the bus reset.

42. (Original) A communication path control system according to claim 39 wherein at occurrence of bus reset on a specific bus within the buses corresponding to the communication path, a specific portal connected with the specific bus proceeds to initialization of the specific bus, then, the device controller proceeds to disconnection of the communication path if at least one of the transmitting node and the receiving node is disconnected from the data network after occurrence of the bus reset.

43. (Previously Presented) A communication path control method according to claim 9 further comprising the steps of:

searching the first and second portals of the bridge being respectively connected with the first and second buses that construct parts of a communication path to be established, and

incrementing the counters of the first and second portals by '1' to establish the communication path using the first and second buses being interconnected together by means of the bridge.

44. (Previously Presented) A communication path control method according to claim 10 further comprising the steps of:

searching the first and second portals of the bridge being respectively connected with the first and second buses that construct parts of a communication path to be established; and

incrementing the counters of the first and second portals by '1' to establish the communication path using the first and second buses being interconnected together by means of the bridge.

45. (Previously Presented) A communication path control method according to claim 9 further comprising the step of:

decrementing the counters of the first and second portals by '1' to release the communication path that is established in advance by using the first and second buses being interconnected together by means of the bridge.

46. (Previously Presented) A communication path control method according to claim 10 further comprising the step of:

decrementing the counters of the first and second portals by '1' to release the communication path that is established in advance by using the first and second buses being interconnected together by means of the bridge.

47. (Previously Presented) A communication path control method according to claim 43 wherein the counters of the first and second portals are changed by '1' after completion of a search of the first and second portals of the bridge that exists in the communication path being established between a transmitting node and a receiving node.

48. (Previously Presented) A communication path control method according to claim 13 wherein the counters of the first and second portals are changed by '1' after

completion of a search of the first and second portals of the bridge that exists in the communication path being established between a transmitting node and a receiving node.

49. (Previously Presented) A communication path control method according to claim 45 wherein the counters of the first and second portals are changed by '1' after completion of a search of the first and second portals of the bridge that exists in the communication path being established between a transmitting node and a receiving node.

50. (Previously Presented) A communication path control method according to claim 44 wherein the counters of the first and second portals are changed by '1' after completion of a search of the first and second portals of the bridge that exists in the communication path being established between a transmitting node and a receiving node.

51. (Previously Presented) A communication path control method according to claim 14 wherein the counters of the first and second portals are changed by '1' after completion of a search of the first and second portals of the bridge that exists in the communication path being established between a transmitting node and a receiving node.

52. (Previously Presented) A communication path control method according to claim 46 wherein the counters of the first and second portals are changed by '1' after completion of a search of the first and second portals of the bridge that exists in the communication path being established between a transmitting node and a receiving node.

53. (Previously Presented) A communication path control method according to claim 43 wherein a process of changing the counters of the first and second portals by '1' is repeated from one end of the communication path to another end of the communication path.

54. (Previously Presented) A communication path control method according to claim 13 wherein a process of changing the counters of the first and second portals by '1' is

repeated from one end of the communication path to another end of the communication path.

55. (Previously Presented) A communication path control method according to claim 45 wherein a process of changing the counters of the first and second portals by '1' is repeated from one end of the communication path to another end of the communication path.

56. (Previously Presented) A communication path control method according to claim 44 wherein a process of changing the counters of the first and second portals by '1' is repeated from one end of the communication path to another end of the communication path.

57. (Previously Presented) A communication path control method according to claim 14 wherein a process of changing the counters of the first and second portals by '1' is repeated from one end of the communication path to another end of the communication path.

58. (Previously Presented) A communication path control method according to claim 46 wherein a process of changing the counters of the first and second portals by '1' is repeated from one end of the communication path to another end of the communication path.

59. (Previously Presented) A communication path control method according to claim 43 wherein each of the first and second buses that construct parts of the communication path interconnects thereon at least one node which installs a control means for searching portals depending on the communication path and changing their counters in value under a request.

60. (Previously Presented) A communication path control method according to claim 13 wherein each of the first and second buses that construct parts of the communication

path interconnects thereon at least one node which installs a control means for searching portals depending on the communication path and changing their counters in value under a request.

61. (Previously Presented) A communication path control method according to claim 45 wherein each of the first and second buses that construct parts of the communication path interconnects thereon at least one node which installs a control means for searching portals depending on the communication path and changing their counters in value under a request.

62. (Previously Presented) A communication path control method according to claim 44 wherein each of the first and second buses that construct parts of the communication path interconnects thereon at least one node which installs a control means for searching portals depending on the communication path and changing their counters in value under a request.

63. (Previously Presented) A communication path control method according to claim 14 wherein each of the first and second buses that construct parts of the communication path interconnects thereon at least one node which installs a control means for searching portals depending on the communication path and changing their counters in value under a request.

64. (Previously Presented) A communication path control method according to claim 46 wherein each of the first and second buses that construct parts of the communication path interconnects thereon at least one node which installs a control means for searching portals depending on the communication path and changing their counters in value under a request.

65. (Previously Presented) A communication path control method according to claim 43 wherein the data network interconnects therein at least one node for searching

portals existing on the communication path and storing identifiers of the portals being searched, so that the communication path is to be established or released on the basis of the identifiers extracted from the node.

66. (Previously Presented) A communication path control method according to claim 13 wherein the data network interconnects therein at least one node for searching portals existing on the communication path and storing identifiers of the portals being searched, so that the communication path is to be established or released on the basis of the identifiers extracted from the node.

67. (Previously Presented) A communication path control method according to claim 45 wherein the data network interconnects therein at least one node for searching portals existing on the communication path and storing identifiers of the portals being searched, so that the communication path is to be established or released on the basis of the identifiers extracted from the node.

68. (Previously Presented) A communication path control method according to claim 44 wherein the data network interconnects therein at least one node for searching portals existing on the communication path and storing identifiers of the portals being searched, so that the communication path is to be established or released on the basis of the identifiers extracted from the node.

69. (Previously Presented) A communication path control method according to claim 14 wherein the data network interconnects therein at least one node for searching portals existing on the communication path and storing identifiers of the portals being searched, so that the communication path is to be established or released on the basis of the identifiers extracted from the node.

70. (Previously Presented) A communication path control method according to claim 46 wherein the data network interconnects therein at least one node for searching

portals existing on the communication path and storing identifiers of the portals being searched, so that the communication path is to be established or released on the basis of the identifiers extracted from the node.

71. (Previously Presented) A communication path control method according to claim 43 wherein each portal provides transfer information for determination whether to transfer asynchronous packets based on a IEEE 1394 standard being received from its own bus connected thereto to another bus or not, said communication path control method further comprising the steps of:

extracting the transfer information from all portals connected with a transmitting bus on the communication path;

designating a portal providing transfer information representing transfer of the asynchronous packets to a receiving node of a receiving bus on the communication path; and

requesting an adjacent portal of the designated portal in a same bridge to search portals that exist on the communication path.

72. (Previously Presented) A communication path control method according to claim 13 wherein each portal provides transfer information for determination whether to transfer asynchronous packets based on a IEEE 1394 standard being received from its own bus connected thereto to another bus or not, said communication path control method further comprising the steps of:

extracting the transfer information from all portals connected with a transmitting bus on the communication path;

designating a portal providing transfer information representing transfer of the asynchronous packets to a receiving node of a receiving bus on the communication path; and

requesting an adjacent portal of the designated portal in a same bridge to search portals that exist on the communication path.

73. (Previously Presented) A communication path control method according to claim 45 wherein each portal provides transfer information for determination whether to transfer asynchronous packets based on a IEEE 1394 standard being received from its own bus connected thereto to another bus or not, said communication path control method further comprising the steps of:

extracting the transfer information from all portals connected with a transmitting bus on the communication path;

designating a portal providing transfer information representing transfer of the asynchronous packets to a receiving node of a receiving bus on the communication path; and

requesting an adjacent portal of the designated portal in a same bridge to search portals that exist on the communication path.

74. (Previously Presented) A communication path control method according to claim 44 wherein each portal provides transfer information for determination whether to transfer asynchronous packets based on an IEEE 1394 standard being received from its own bus connected thereto to another bus or not, said communication path control method further comprising the steps of:

extracting the transfer information from all portals connected with a transmitting bus on the communication path;

designating a portal providing transfer information representing transfer of the asynchronous packets to a receiving node of a receiving bus on the communication path; and

requesting an adjacent portal of the designated portal in a same bridge to search portals that exist on the communication path.

75. (Previously Presented) A communication path control method according to claim 14 wherein each portal provides transfer information for determination whether to transfer asynchronous packets based on an IEEE 1394 standard being received from its own bus connected thereto to another bus or not, said communication path control method further comprising the steps of:

extracting the transfer information from all portals connected with a transmitting bus on the communication path;

designating a portal providing transfer information representing transfer of the asynchronous packets to a receiving node of a receiving bus on the communication path; and

requesting an adjacent portal of the designated portal in a same bridge to search portals that exist on the communication path.

76. (Previously Presented) A communication path control method according to claim 46 wherein each portal provides transfer information for determination whether to transfer asynchronous packets based on an IEEE 1394 standard being received from its own bus connected thereto to another bus or not, said communication path control method further comprising the steps of:

extracting the transfer information from all portals connected with a transmitting bus on the communication path;

designating a portal providing transfer information representing transfer of the asynchronous packets to a receiving node of a receiving bus on the communication path; and

requesting an adjacent portal of the designated portal in a same bridge to search portals that exist on the communication path.

77. (Previously Presented) A communication path control method according to claim 71 further comprising the steps of:

periodically transmitting to each of portals that construct parts of the communication path prescribed asynchronous packets;

making determination that a specific bus connected with a specific portal which do not respond to the prescribed asynchronous packets being periodically transmitted is disconnected from the data network; and

disconnecting the communication path using the specific portal connected with the specific bus.

78. (Previously Presented) A communication path control method according to claim 72 further comprising the steps of:

periodically transmitting to each of portals that construct parts of the communication path prescribed asynchronous packets;

making determination that a specific bus connected with a specific portal which do not respond to the prescribed asynchronous packets being periodically transmitted is disconnected from the data network; and

disconnecting the communication path using the specific portal connected with the specific bus.

79. (Previously Presented) A communication path control method according to claim 73 further comprising the steps of:

periodically transmitting to each of portals that construct parts of the communication path prescribed asynchronous packets;

making determination that a specific bus connected with a specific portal which do not respond to the prescribed asynchronous packets being periodically transmitted is disconnected from the data network; and

disconnecting the communication path using the specific portal connected with the specific bus.

80. (Previously Presented) A communication path control method according to claim 74 further comprising the steps of:

periodically transmitting to each of portals that construct parts of the communication path prescribed asynchronous packets;

making determination that a specific bus connected with a specific portal which do not respond to the prescribed asynchronous packets being periodically transmitted is disconnected from the data network; and

disconnecting the communication path using the specific portal connected with the specific bus.

81. (Previously Presented) A communication path control method according to claim 75 further comprising the steps of:

periodically transmitting to each of portals that construct parts of the communication path prescribed asynchronous packets;

making determination that a specific bus connected with a specific portal which do not respond to the prescribed asynchronous packets being periodically transmitted is disconnected from the data network; and

disconnecting the communication path using the specific portal connected with the specific bus.

82. (Previously Presented) A communication path control method according to claim 75 further comprising the steps of:

periodically transmitting to each of portals that construct parts of the communication path prescribed asynchronous packets;

making determination that a specific bus connected with a specific portal which do not respond to the prescribed asynchronous packets being periodically transmitted is disconnected from the data network; and

disconnecting the communication path using the specific portal connected with the specific bus.